

# Survey and Analysis of an Intelligent Information System for Tourism Development -The Case of the Moroccan Eastern Region-

S.Bourekadi<sup>1</sup>, S.Khouli<sup>2</sup>, K.Slimani<sup>3</sup>, R.Messoussi<sup>4</sup> and M.L.Kerkeb<sup>5</sup>

**Abstract** — Our study seeks to draw on a strategic monitoring to develop the field of tourism in Morocco, with the goal of promoting its heritage through the creation of a computer application using humanitarian services. This application shows the concrete link between the cultural heritage and development, by seeking to answer an important question “How can programs of protection and promotion of tangible and intangible heritage have a positive impact on the economic and social development of communities?”

Besides, the portal could be a centre of resources that has a database of dozens of thousands of classified information, thematic folders, tourism from A to Z, and key issues. The system could be also a directory for researchers, participants, country and regional files, with contributions of areas and common dictionaries, codes, maps, guides, and translation tools. Our objective is to manage an intelligent information system for touristic development demonstrating the role and the importance of cultural heritage as a source of contemporary creation and creativity. The creation of E-Heritage tourist application will be useful for national and foreign tourists through extending the distribution of tourist information.

In this study we dealt with the problem of the relationship between IT and strategic analysis in the field of tourism. In fact, strategic analysis is now based on the planning of the information system. Consequently, we are in front of a new relationship between the information system and strategy to the service of tourism. Our vision is to find a compromise between the two perspectives: strategic monitoring and the new profession of the computer scientist in tourism.

**Index Terms**— Information system, E-tourism, Strategic monitoring, Tourism Watch, Territorial intelligence.

## 1 INTRODUCTION

When people protect their heritage, they in fact recreate their past, because the heritage carries the memory of its people and community.

Beyond the intrinsic value that it represents, protected and valued heritage can be a significant resource for the socio-economic progress of communities, a growth engine and a sustainable local development.

Our study focuses on the enhancement and development of heritage that has a significant positive impact on the standard and quality of living.

Our solution will go side by side with tourism stakeholders in transferring the society of information to the society of knowledge by mobilizing knowledge and decision making tools. Moreover, this will respond to their request for information by putting at their disposal a database of information and knowledge sharing where they can not only find scientific and technical information like works and publications of the research sector, but also information of strategic nature.

The first stage of our mission comprises the establishment of an observational and monitoring feature of the Eastern region heritage of Morocco to detect, protect, value and track all

signals capable of developing tourism in this area. This will be through the use of strategic monitoring within the framework of our inquiry which aims to determine whether the opening of an information system on the eastern region could change the corresponding image of the heritage of this region.

The questions we selected are transparent in varied degrees so that the respondents know the aim of the research. The asked questions were direct open ended, direct closed ended, indirect open ended, and indirect closed ended. Meanwhile, the inquiry contains questions that concern all aspects of the research.

The closed ended questionnaire is the most common. The questions and possible answers were pre-established. From the beginning, the objective of the study is clear to the participants. This questionnaire was set so as to enable easy counting and a good interpretation of the answers. It comprises two types of questions: dichotomous and multiple-choice questions.

*Dichotomous questions* leave the participant only the choice between two proposed answers.

*Multiple-choice* questions also well known give the participant the ability to choose an answer among several answers, the one that fits best. However, it is possible that none of the answers is suited and that the participant wishes to have other choices.

- Direct closed-ended questionnaire is of greatest efficiency when the answers are clearly defined, well understood, and limited in number.
- In terms of the direct open-ended questionnaire, the wording of questions is different: they are usually open.

• <sup>1,2,5</sup>Remote sensing, Signal and Image Processing, Applied Math-informatics-Decision making Laboratory.

National School of Applied Sciences, Abdelmalek Essaadi University, Tetouan, Morocco. [Salmane.bourekadi@gmail.com](mailto:Salmane.bourekadi@gmail.com)

• <sup>3,4</sup>Systems of Telecommunication and Decision Engineering Laboratory.

Faculty of Sciences, Ibn Tofail University, Kenitra, Morocco.  
[Slimani.uit@gmail.com](mailto:Slimani.uit@gmail.com)

The investigator will not ask any dichotomous or multiple choice questions and he/she probably will not have a predetermined list of questions, since he/she wants to let the participant talk as freely as possible rather than asking.

- Indirect open-ended questionnaire is the biggest advantage of our questionnaire. It leaves the possibility to collect data that the participant could not provide through a direct or more closed approach.
- Finally, the indirect closed-ended questionnaire also aims to hide the real aims of the study from the participant.

In this study, we detected the main research methods that are divided between the choice of the method and data collection tools. We dealt also with the results of the research by reading the obtained results and presenting synthetic diagnostics.

In fact, a strategic monitoring may afford a relatively sustainable competitive advantage for the heritage of the Moroccan Eastern region because the latter could be upgraded. Its heritage needs to be developed through an inventory and selection of regional treasures so that it is also competitive to create value.

## 2 OBJECTIVE OF STUDY

### Main Objective

The creation of an application that presents and adds value to the heritage of the Eastern region of Morocco "Research usually has multiple goals and it is therefore reasonable that its value must be judged by multiple criteria". [2]

### Specific Objectives

- Promote the recovery and formalization of information on the heritage of the Eastern region.
- Pursue the opportunities and means to protect this heritage.
- Listen to the oriental region environment to catch and anticipate major future trends "The importance of listening is easier to understand when we realize that we are poor listeners". [1]

### Fields of Study

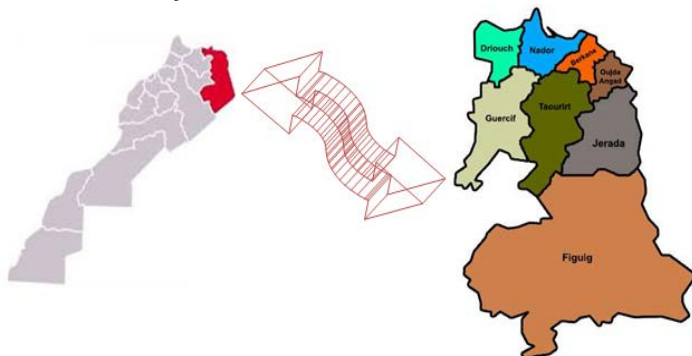


Fig 1 : Zoom on the Moroccan Eastern region

The field of study bounds on a well determined geographical area; it is the Eastern region (Oujda, Berkane, Drigneche, Jerada, Nador, and Taourirt). This delimitation is based on several reasons including:

- The eastern region is at the heart of a strategic area with a Mediterranean identity as well as Saharan.
- A unique historical, architectural, and cultural heritage.
- A rich hinterland with enormous potential (forests, mountains, desert...)
- The representation of the city in terms of bed capacity, travel agencies, number of overnight stays, and visitors.

## 3 METHODOLOGY

The followed approach includes identifying heritage of this region, the existing tourism offers, participants' points of view on strategic monitoring, and trends and attitudes of tourists with E-Heritage. Our approach includes also:

- Analyzing the information (internal & external).
- Setting general objectives.
- Determining strategic monitoring to reach these goals.
- Determining actions in terms of resources to put on tourism.

### 3.1 Structure of the questionnaire

The questionnaire was consisted of around 12 closed questions and 4 open questions. In total, 16 questions were entered and exploited.

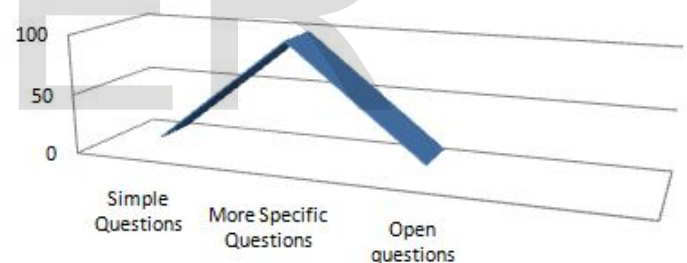


Fig 2 : Types of the used questions

The questionnaire covered a sample of 55 people; its distribution was carried out in all Moroccan regions. It was a simple random sampling addressing Moroccans and foreign tourists ranging from 16 years old and over.

The choice of our sampling was to identify the opinion of Moroccans and foreigners on the heritage of the eastern region on the one hand, and on the idea of E-Heritage tourist application on the other hand.

### 3.2 Means of Investigation

An inquiry was made with the aim of analyzing the vision of Moroccan and foreign participants on the heritage of the Eastern region as well as E-heritage tourist application.

The tools we used to collect the required information on the field are the following two famous methods:

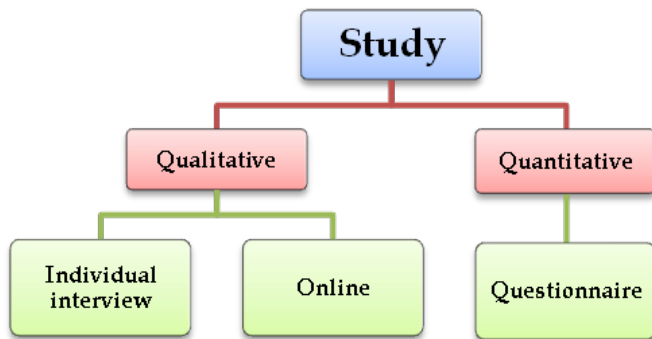


Fig 3 : The approaches used in this study

In fact, though the used tools differ depending on the type of the searched data; both approaches give us the possibility to have a wide vision and to be able to provide a more accurate interpretation of the results of this investigation.

### 3.3 Questionnaire Administration

#### Pre-testing

- Testing the questionnaire on a sample of 5 people.
- Editing the questionnaire after testing.

#### Where?

- Online distribution: we selected a variety of online distribution channels for a well targeted publication. We based ourselves on targeting distribution channels that interest us in our study. Some of the channels we have chosen, for example: Blogs, Forums, Social Media, Traveler Reviews websites, emails...
- Field observation: at the beginning, we anticipated that this step will not occur in our study, we were too optimistic about the relational extent of tourists and Moroccans on the computer system. Meanwhile, we were shocked by a very small rate of feedback for the emails sent.

#### When?

- The study took place over the months of January and February 2016 (approximately two months)

#### How?

- Getting answers from questionnaires. The principle is to check the responses and give points of view on the form published online and delivered in the local of the respondents." Statistical Design and Analysis of Experiments is intended to be a practitioner's guide to statistical methods for designing and analyzing experiments"[3]

#### Difficulties encountered:

- Mobility problems;
- Lack of cooperation with some recipients;
- The supposed time for a questionnaire was always exceeded (*Study explanation, definition of the used keywords ...*)" Consequently, some sense of the discipline being practiced has to be added to the philosophical procedures articulated by Husserl"[4]

#### Time spent:

- Digital Online form: less than 10 minutes.
- Paper form: 10 to 15 minutes.

## 4 RESULTS

### 4.1 Results Analysis

After counting, the sample of 55 individuals contains more young people between the age of 16 and 29 among the survey respondents and fewer people between 30 and 49. There is also an absence of those aged between 50 and 64 years, and 65 years and over.

Therefore, the services available via the internet or mobile are particularly popular within young people between 16 and 29 years old.

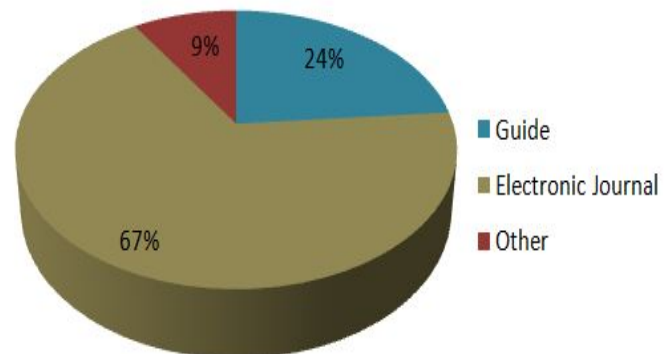


Fig 4 : How do you prefer to receive tourist information about the Eastern region?

Regarding means of information on tourism offers, we notice that 67% of people prefer electronic newspapers, 24% prefer offers through guides, and 9% prefer other tools. Thus, it is within this sense that the use of the internet is growing day by day.

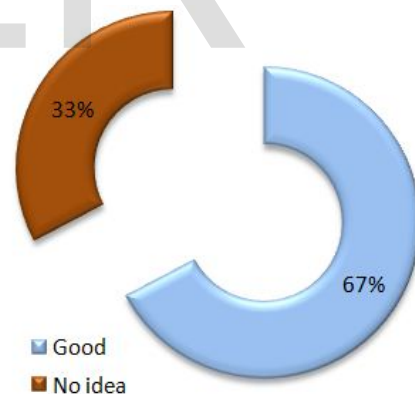


Fig 5 : How do you find the idea of a relationship between strategic monitoring and information system?

Most participants (67%) do not know the relationship between strategic monitoring and information system. On the contrary, there are 33% of people who admire the idea.

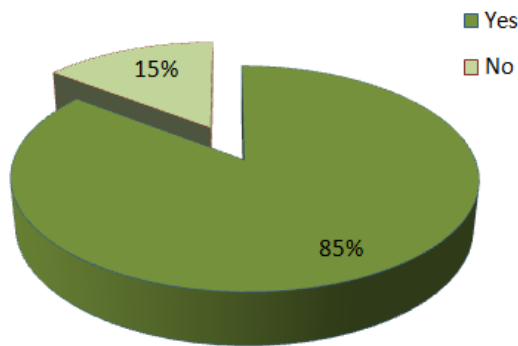


Fig 6 : Do you own a Smartphone or a Tablet?

Figure 6 aimed in fact to determine the number of people who have a Smartphone or tablet. In general, 85% of participants positively responded whereas 15% negatively. This means that the use of Smartphones and tablets is on the rise.

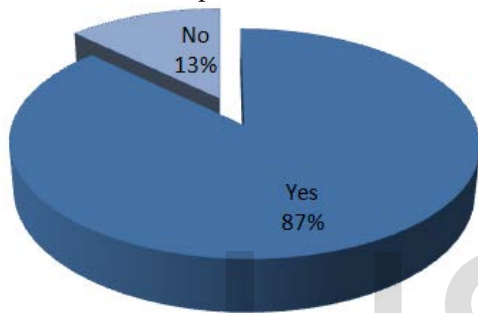


Fig 7 : Does rarity of information regarding the Eastern heritage limit the development of tourism in this region?

For the attached question, we found that 87% of people think that lack of information concerning the heritage of the Eastern region limits tourism development in that region; in contrast, 13% said no.

We can notice that lack of information about the heritage of the eastern region is one of the obstacles to its development.

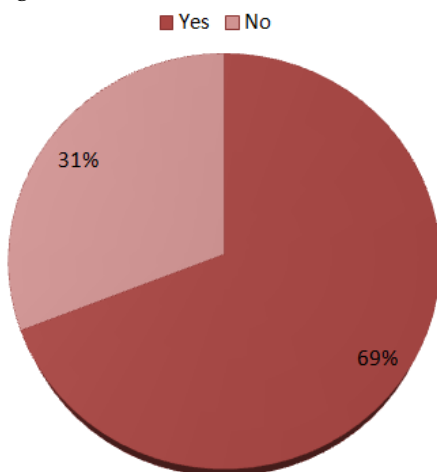


Fig 8 : Do you have the possibility to be a member in a platform that provides you via SMS or Email with new information about the heritage of the Eastern region?

Meanwhile, we can see that 69% of people are willing to engage in a platform for information by SMS or E-mail on new

information about the heritage of the Eastern region. However, 31% said the opposite.

This means that the majority prefer to engage with a platform on new information about the heritage of the Eastern region by SMS or Email.

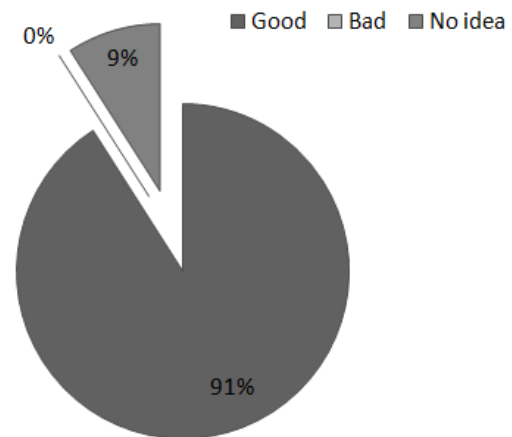


Fig 9 : How do you find the idea of E-Heritage tourist application?

In Figure 9, we can see that 91% of participants found the idea of E-Heritage Tourist Application interesting, and 9% know nothing about these applications.

Hence, we can say that the majority of participants appreciate the use of digitals to promote heritage sites.

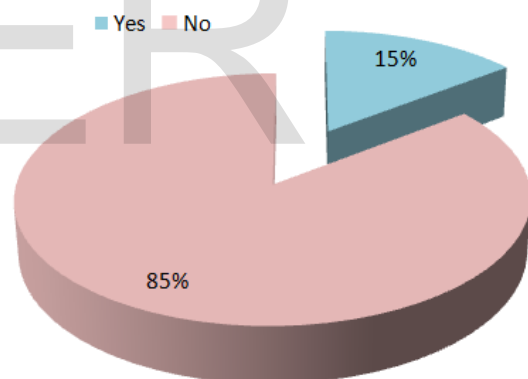


Fig 10 : Do current applications that present the heritage of the eastern region cover your needs?

In relation to Figure 10, we aimed to know exactly whether people are satisfied towards the existing applications that present the heritage of the eastern region or not. We found out that 85% of participants are dissatisfied with these applications.

The most important thing observed from the answers presented here is that the current applications do not meet the needs of consumers, and that there is still a need to search for mechanisms to develop the approach.



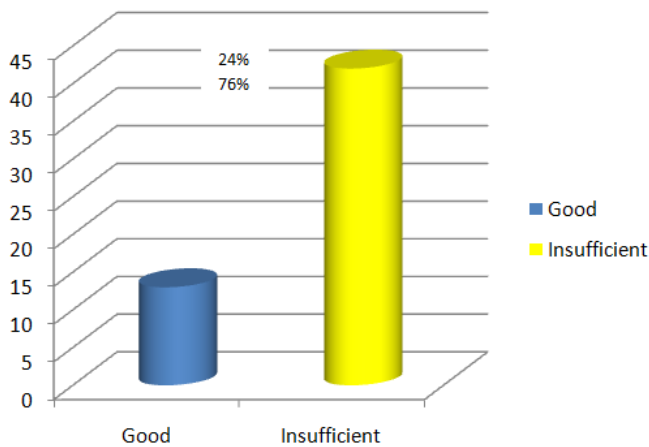


Fig 11 : How do you rate the performance of these applications?

Figure 11 demonstrates that 76% of people believe that the performance of these applications is poor. On the contrary, 24% of people say that the performance is good.

■ The specific characteristics of heritage in the region of Eastern.

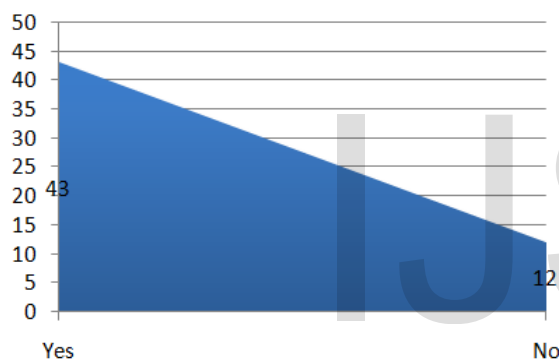


Fig 12 : Are there features of the Eastern region heritage?

Figure 12 shows that 78% (43 participants) of people find the heritage of the Eastern region endowed with specific characteristics, and the remaining 22% (12 participants) are against. In fact, participants have a positive image on the heritage of the Eastern region.

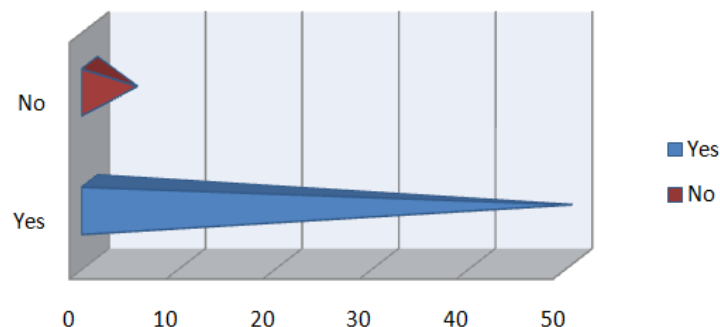


Fig 13 : Do you think that education of citizens towards the tangible and intangible heritage of the Eastern region is necessary?

From Figure 13, we notice that 91% (50 participants) of people believe that education of people with regards to tangible and intangible heritage of the eastern region is necessary, whereas only 9% (5 participants) said the opposite.

We can say that communication, education, and raising awareness are essential targets allowing communities to protect and conserve the heritage of this region.

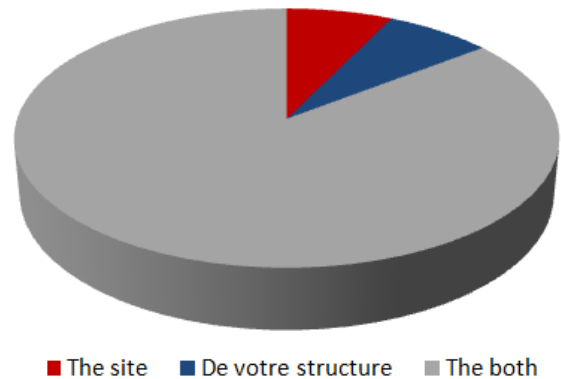


Fig 14 : Who is responsible for the preservation and conservation of tangible and intangible heritage?

Figure 14 demonstrates that 86% of respondents in this survey say that the preservation and conservation of tangible and intangible heritage are the mission of the Moroccan Eastern region website and also its structure. It is thus necessary for cooperation between different departments of the region and its citizens.

## 4.2 Reading Reviews

**Review N°1:** What are the cultural events organized in your region? What is the rate of participation?

After reading the reviews on this issue, we can say that:

- 42 respondents out of 55, that is 76% know nothing about the cultural activities organized in their region.
- 13 respondents out of 55, that is 24% of participants do not know too much about these events, and among these events:



Fig 15 : Cultural events organized in the Oriental Region  
Within these participants, nobody knows about the participation rates in those events.  
Based on these results, we can say that the majority of people do not know the cultural activities organized in the eastern

region. That is due to a lack of communication between those who produce, consume and those who transmit these events although this region is rich with many cultural events in the fields of art, film, literature, music, dance and theater.

**Review N° 2:** *What are the means used to promote access of all, to cultural facilities and culture in general?*

This question led to several different answers. Each participant gave his/her point of view on the means used to promote access to cultural facilities and culture in general. Through this comment section, we can say that the means used to promote access of all are numerous. Moreover, the cultural challenges in the eastern region are to develop a cultural life in the region, to promote it, its citizens, and its organizations. It is also important to recognize the contribution of citizens and organizations to the cultural development of each city for a better performance of the art of living. This will allow them to take advantage of these great events and propose to the audience cultural diverse offers.

Therefore, it can be considered that there is urgency to review the terms of communication on the entire region. Among the urgent things we can include:

- The Federation of Information needs to transmit to all the Moroccan cities;
- The use of different media to deliver information (written, social networks, radio, television);
- A development of the use of new information technology and communication;
- Creating links with the organizations;
- Setting up a rolling calendar of cultural activities and other events in the region.

**Review N° 3:** *Do you know some elements of tangible and intangible heritage that belongs to the Eastern region? If yes, specify?*

Regarding respondents' knowledge of tangible and intangible heritage of the Eastern region, one can say that the majority do not know the heritage of this region. Among all, few of them know just a little.



Fig 16 : Tangible and intangible heritage of the Oriental Region

Within this context, we can say that there is a lack of knowledge regarding the heritage of this region. Meanwhile, no effective and specific communication policy has been done till now to make this heritage known in a logical way.

**Review N° 4:** *How do you consider contributing to the enhancement of tangible and intangible heritage of the Eastern region? What action/s? Please specify.*

Proposals of participants to promote the tangible and intangible heritage of the Eastern region are rich and varied. After analyzing these proposals concerning the enhancement of tangible and intangible heritage of the Eastern region, we can say that nothing can be done on this issue until raising concerned peoples' awareness, restoring the image of that heritage, and the creation of an observatory heritage enriching along with the implementation of an effective communication strategy. In addition, the use of new information and communication technologies for the marketing of this heritage and the region in general is also of great importance.

## 5 DISCUSSION

In fact, the dimension of innovation plays a crucial role in the search for policies to promote the heritage. The collected data impose the enhancement and development of the potential of the *Moroccan Eastern region* and the idea of creating an e-heritage application, which may give outstanding universal value.

### *Synthetic diagnosis*

The heritage of the Eastern region needs a system of information and a specific communication strategy to identify, assess, manage, optimize, operate and promote this heritage. Thus, raising citizens' awareness of the importance of this heritage can be a productive investment for the development of the region.

Actually, the proposals are submitted with new tools that can promote the heritage of the Eastern region such as:

- The creation of specific animation tools.
- The creation of a Geographic Information System (GIS).
- The creation of documentary films with an exciting picture of the wealth of the region.
- A renewal of laws and regulatory items.

In addition, what can be removed from this study is explained below:

The current websites that feature the heritage of the Eastern region because they do not meet the needs of consumers:

- No defined strategy, the information is made without upstream thinking.
- Weak spread of information and interaction with citizens.
- Poor page animation.
- No interactions' arousal (react, appeal to emotions...)
- Weak diversification of contents.

Other problems that face the enhancement of the Eastern region heritage are: Lack of communication and the majority of Moroccans do not know the heritage of the Eastern region.

From all the above, it appears that the eastern region has inadequate tools for the development and enhancement of heritage compared to other Moroccan regions.

This situation seems to make information and communication on heritage privileges of this region a necessity for the creation of sustainable tourism benefits.

Meanwhile, strategic monitoring becomes an obligation in a region where innovation and absolute management are essen-

tial. This can be found in a collective action that tackles the various problems of this region, the development of its economy, the preservation of its heritage and raising public awareness.

Thus, creating an E-heritage application remains one of the strongest expectations to give at least a universal value to the tangible and intangible heritage of the Eastern region and contribute to its promotion.

## 6 CONCLUSION

Even The work we carried out determines the nature of the strategic objectives, weaknesses, strengths, possible solutions and different advantages to maintain and develop. Besides, development strategy of the Eastern region and heritage promotion is the main focus of communication.

Tourism industry presents a wide range of commercial and organizational situations where the effort of strategic monitoring should be enrolled. This effort enables coordinating and guiding activities' multitude and decisions related to the promotion of the heritage.

The effort of strategic monitoring for the revival of the Eastern region will be successful if:

It is collective and proceeds with "series of discussions with professionals".

It ensures respect to the cultural and natural aspects of "maintaining a consistent level of quality, and remaining attuned to the changes taking place in international tourism".

It raises a general awareness of civil society which constitutes the surrounding environment of heritage preservation and enhancement.

It is accompanied with a political commitment able to detect fundamental movements of this heritage.

There is no doubt that our study reveals a domain of action program that should be derived from a series of recognition studies, identification, exploitation, enhancement and evaluation on the ground. However, achieving this program has first a need of a collection of ideas, opinions, criticisms and suggestions to launch an effective strategy designed to promote the heritage of this region.

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## REFERENCES

[1] Iwankovitch, R. The Importance of Listening. *Language Arts Journal of Michigan*, 17(2), 2001.

[2] ADLER, Robert, EWING, John, TAYLOR, Peter, et al. Citation statistics. *Statistical Science*, vol. 24, no 1, p. 1. 2009.

[3] Mason, R. L., Gunst, R. F., & Hess, J. L. Statistical design and analysis of experiments: with applications to engineering and science (Vol. 474). John Wiley & Sons. 2003.

[4] Giorgi, A. Difficulties encountered in the application of the phenomenological method in the social sciences. *Analise Psicologica*, 24(3), 353-361, 2012.

[5] S.Bourekadi., S.khouli., & al., "psychologie informatique et son impact sur le comportement humain," *International Journal of Innovation and Applied Studies*, vol. 14 No. 2 Jan. 2016, pp. 543-548.

[6] K.Slimani., S.Bourekadi., & al., "Design of an Awareness System on SRH Based on the Recognition of Emotional Facial Expressions," *International Journal on Recent and Innovation Trends in Computing and Communication*, vol. 4 No. 3 Mars. 2016, pp.193-196.

[7] S.Bourekadi., K.Slimani., & al., "Gestion Responsable d'un Système d'Information Aide à La Sensibilisation sur la SSR," *Annales des Sciences de la Santé*, N°7, Vol. 1, Juin.2016, pp. 25-32.

[8] Pearce, D. G. Tourism development in Paris: Public intervention. *Annals of Tourism Research*, 25(2), 457-476, 1998.

[9] Perdue, R. R., Long, P. T., & Allen, L. Resident support for tourism development. *Annals of tourism Research*, 17(4), 586-599, 1990.

[10] McCool, S. F., & Martin, S. R. Community attachment and attitudes toward tourism development. *Journal of Travel research*, 32(3), 29-34, 1994.

[11] Vallerand, R. J. Vers une méthodologie de validation trans-culturelle de questionnaires psychologiques: Implications pour la recherche en langue française. *Canadian Psychology/Psychologie Canadienne*, 30(4), 662, 1989.

[12] Chen, H., Chiang, R. H., & Storey, V. C. Business Intelligence and Analytics: From Big Data to Big Impact. *MIS quarterly*, 36(4), 1165-1188, 2012.

[13] Boumeaza, T., Sbail, A., Salmon, M., Benata, M., & Ozer, A. Impacts écologiques des aménagements touristiques sur le littoral de Saïdia, Maroc oriental. *Revue géographique des pays méditerranéens/Journal of Mediterranean geography*, (115), 94-102, 2010.

[14] Efros, A. A., & Freeman, W. T. Image quilting for texture synthesis and transfer. In *Proceedings of the 28th annual conference on Computer graphics and interactive techniques* (pp. 341-346). ACM. 2001.

[15] Sim, J. Collecting and analysing qualitative data: issues raised by the focus group. *Journal of advanced nursing*, 28(2), 345-352, 1998.

[16] Tang, H., & Ng, J. H. K. Googling for a diagnosis—use of Google as a diagnostic aid: internet based study. *Bmj*, 333(7579), 1143-1145, 2006.

[17] Fergus, R., Perona, P., & Zisserman, A. A visual category filter for google images. In *European Conference on Computer Vision* (pp. 242-256). 2004. Springer Berlin Heidelberg.

[18] Rankin, P. T. The importance of listening ability. *The English Journal*, 17(8), 623-630, 1928.

[19] Kacperck, L. Non-verbal communication: the importance of listening. *British Journal of Nursing*, 6(5), 275-279, 1997.

[20] Giorgi, A. Difficulties encountered in the application of the phenomenological method in the social sciences. *Indo-Pacific Journal of Phenomenology*, 8(1), 1-9, 2008.

[21] TORRENTE, P. Développement durable, tourisme et territoire. Quelques éléments préalables pour une approche systémique. *ES-SACHESS-Journal for Communication Studies*, 2(2 (4)), 131-148, 2011.

[22] Berriane, M. Le tourisme des nationaux au Maroc (une nouvelle approche du tourisme dans les pays en développement). In *Annales de Géographie* (pp. 131-161). Armand Colin. 1993.

[23] Francik, E. P., & Clark, H. H. How to make requests that overcome obstacles to compliance. *Journal of Memory and Language*, 24(5), 560-568, 1985.

- [24] Nedungadi, P., & Hutchinson, J. The prototypicality of brands: Relationships with brand awareness, preference and usage. NA-Advances in Consumer Research Volume 12, 1985.
- [25] Turban, E., Aronson, J., & Liang, T. P. (2005). Decision Support Systems and Intelligent Systems 7<sup>th</sup> Edition (pp. 10-15). Pearson Prentice Hall.
- [26] Blais, M., & Martineau, S. L'analyse inductive générale: description d'une démarche visant à donner un sens à des données brutes. *Recherches qualitatives*, 26(2), 1-18, 2006.
- [27] Bouaouinate, A. Erg Chebbi (Maroc): une dynamique touristique interrompue par une inondation au désert. In *Annales de géographie* (No. 3, pp. 332-343). Armand Colin. 2009.
- [28] Darbellay, F., Clivaz, C., Nahrath, S., & Stock, M. Approche interdisciplinaire du développement des stations touristiques. Le capital touristique comme concept opératoire. *Mondes du tourisme*, (4), 36-48, 2011.
- [29] Geertz, C., GEERTZ, C., GEERTZ, H., & ROSEN, L. Suq: The Bazaar Economy in Sefrou in Meaning and Order in Moroccan Society: Three Essays in Cultural Analysis. 1979.
- [30] Wanlin, P. L'analyse de contenu comme méthode d'analyse qualitative d'entretiens: une comparaison entre les traitements manuels et l'utilisation de logiciels. *Recherches qualitatives*, 3, 243-272, 2007.
- [31] Langlois, T. The Gnawa of Oujda: Music at the margins in Morocco. *The world of music*, 135-156, 1998.
- [32] Gattuso, L. L'enseignement de la statistique: où, quand, comment, pourquoi pas?. *Statistique et Enseignement*, 2(1), 5-30, 2011.
- [33] Bergadaà, M. (1989). Le temps et le comportement de l'individu Deuxième partie. *Recherche et Applications en Marketing*, 4(1), 37-55.
- [34] Christophe Clivaz, Stéphane Nahrath et Mathis Stock, "Le développement des stations touristiques dans le champ touristique mondial", *Mondes du tourisme*, numéro hors série "Tourisme et mondialisation", 2011.
- [35] Sebastiani, F. Machine learning in automated text categorization. *ACM computing surveys (CSUR)*, 34(1), 1-47, 2002.
- [36] Carpenter, S. K., Pashler, H., & Vul, E. What types of learning are enhanced by a cued recall test?. *Psychonomic Bulletin & Review*, 13(5), 826-830, 2006.
- [37] Tiberghien, G., & Beauvois, J. L. Domination et impérialisme en psychologie. *Psychologie française*, 53(2), 135-155, 2008.